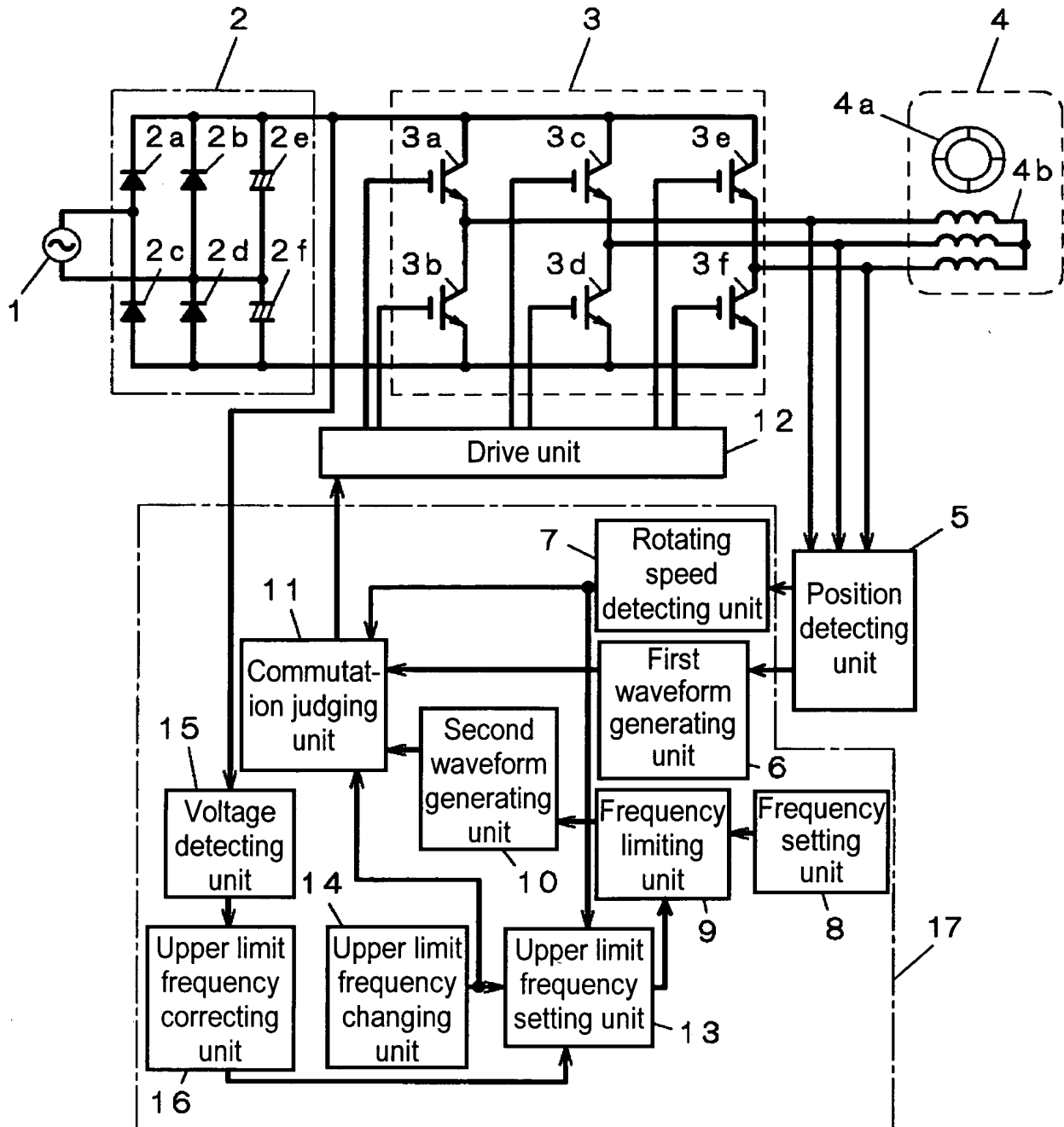


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FIG. 1



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FIG. 2

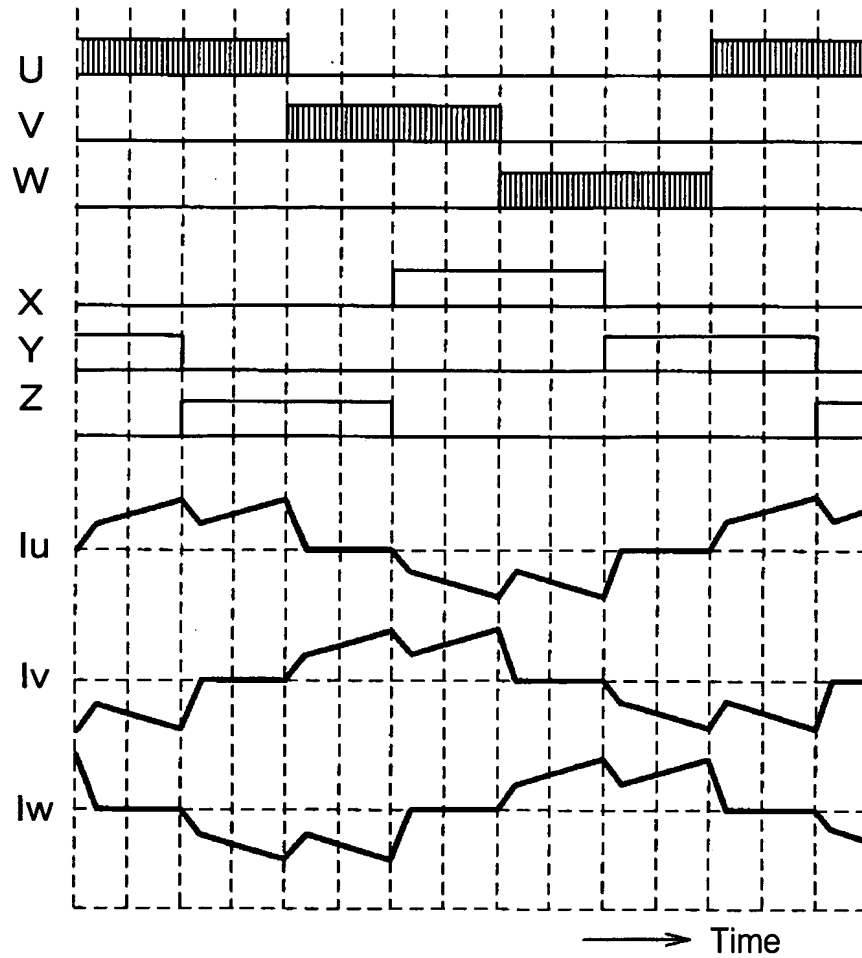
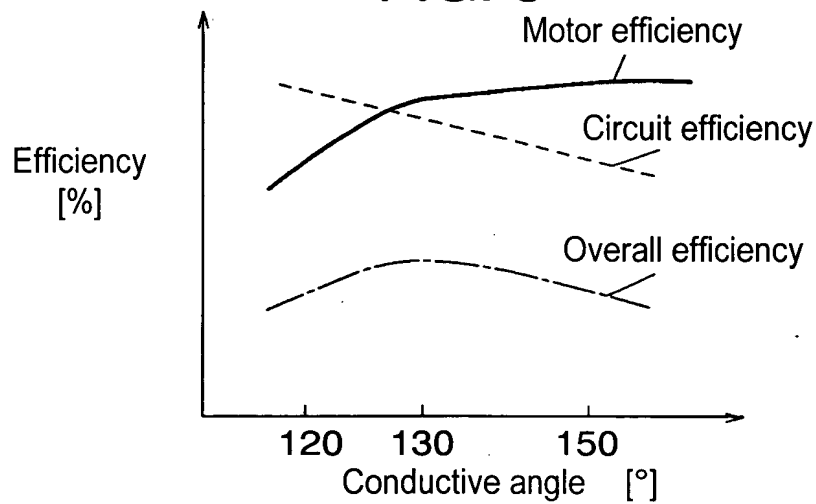


FIG. 3



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FIG. 4

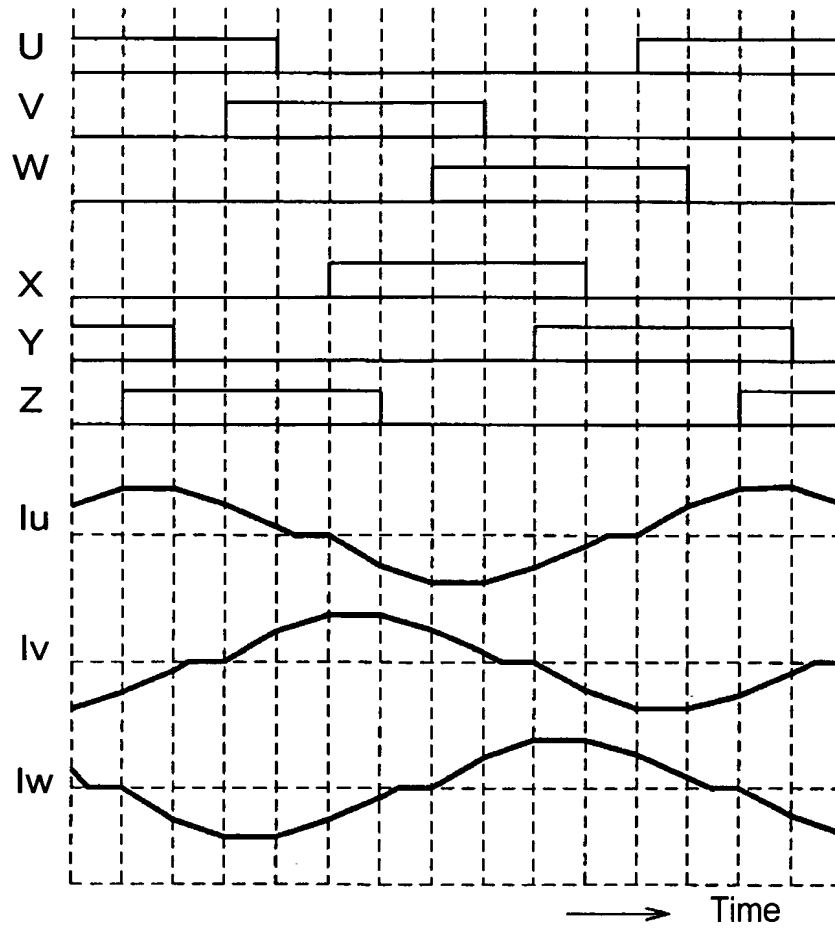
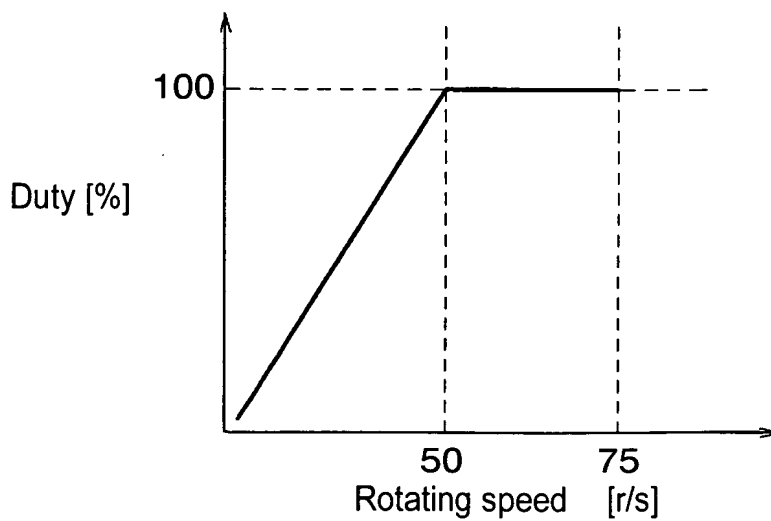


FIG. 5



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FIG. 6

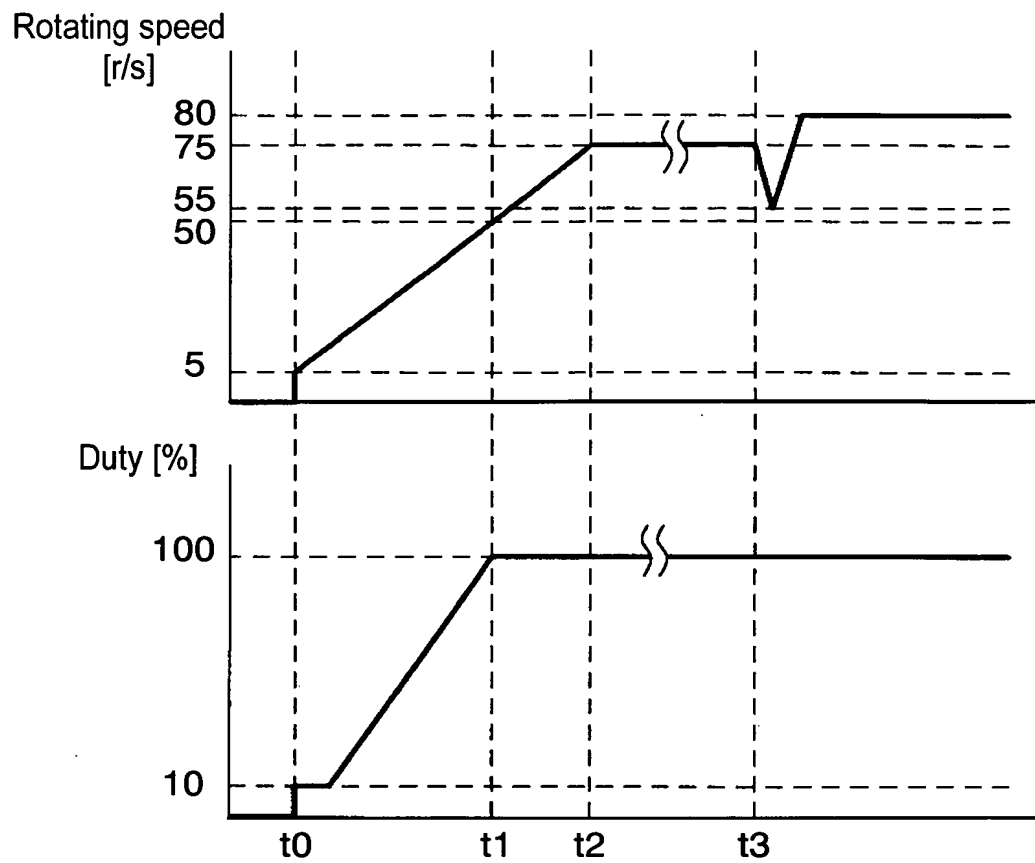
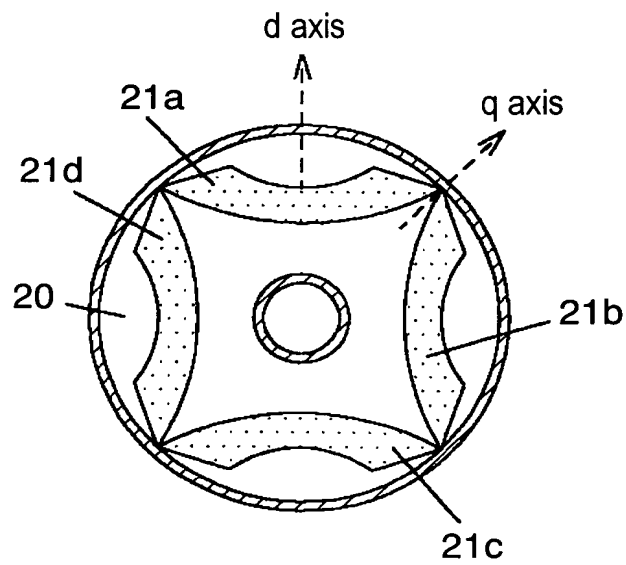


FIG. 7





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FIG. 9

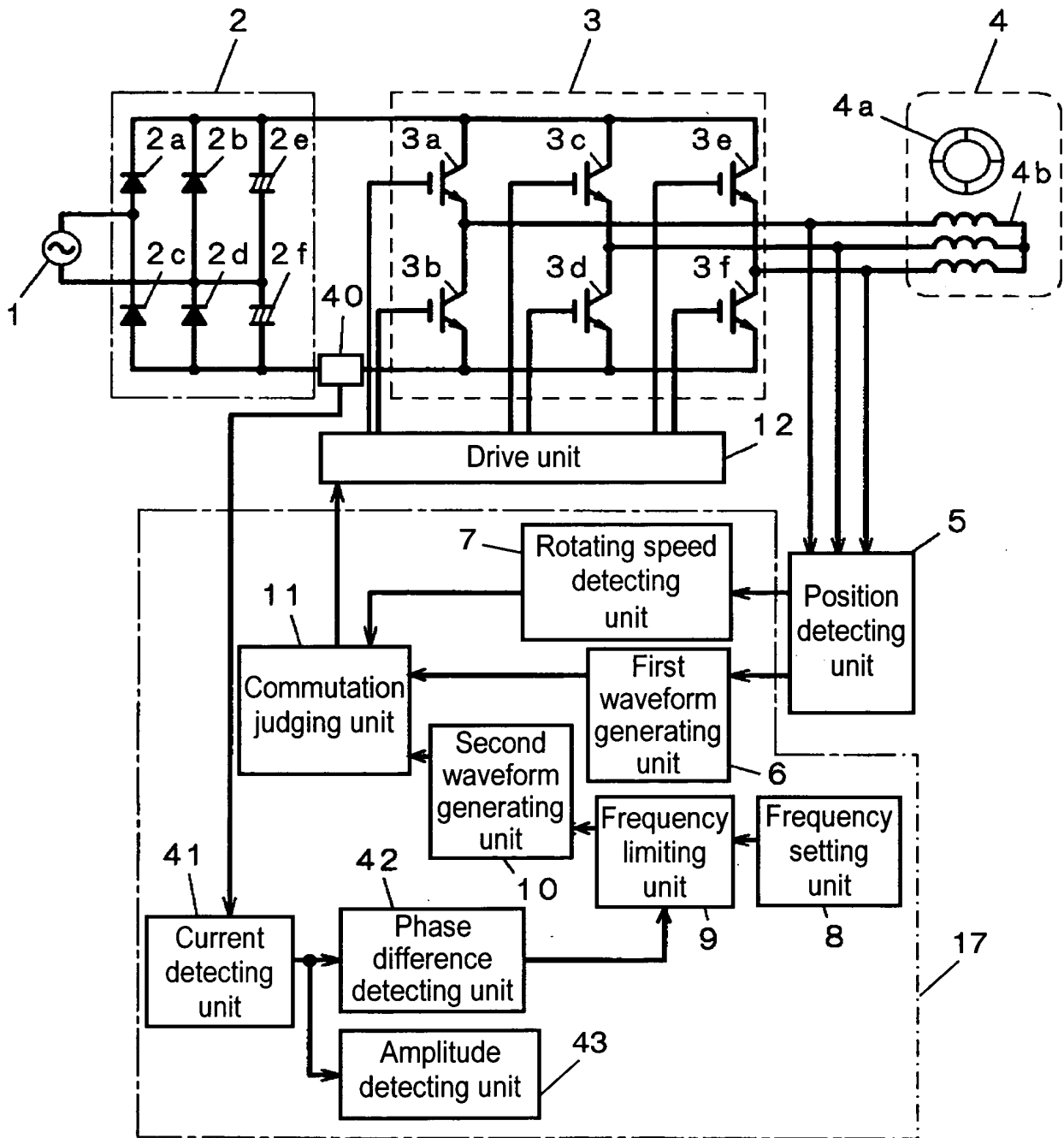
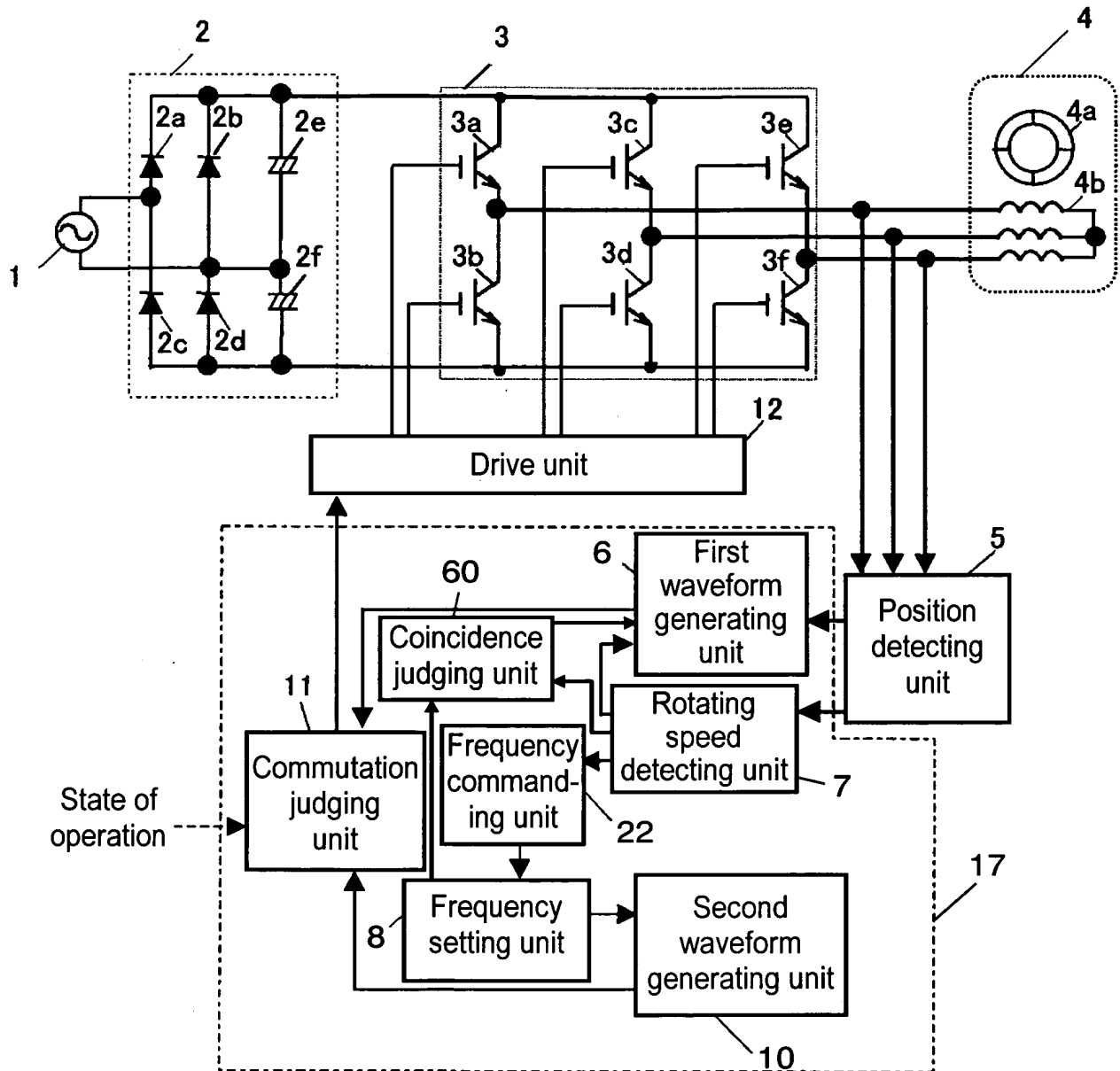
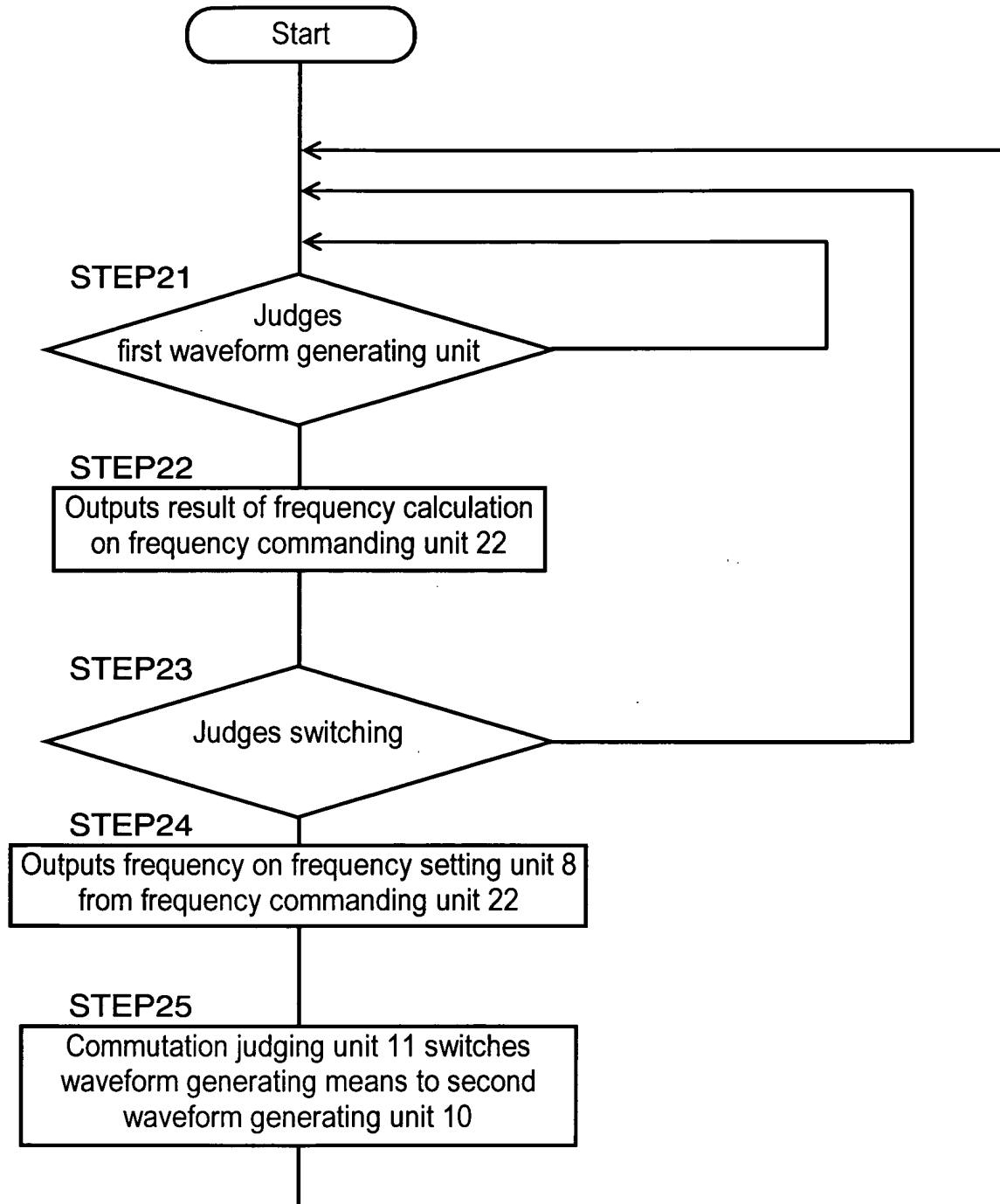


FIG. 10



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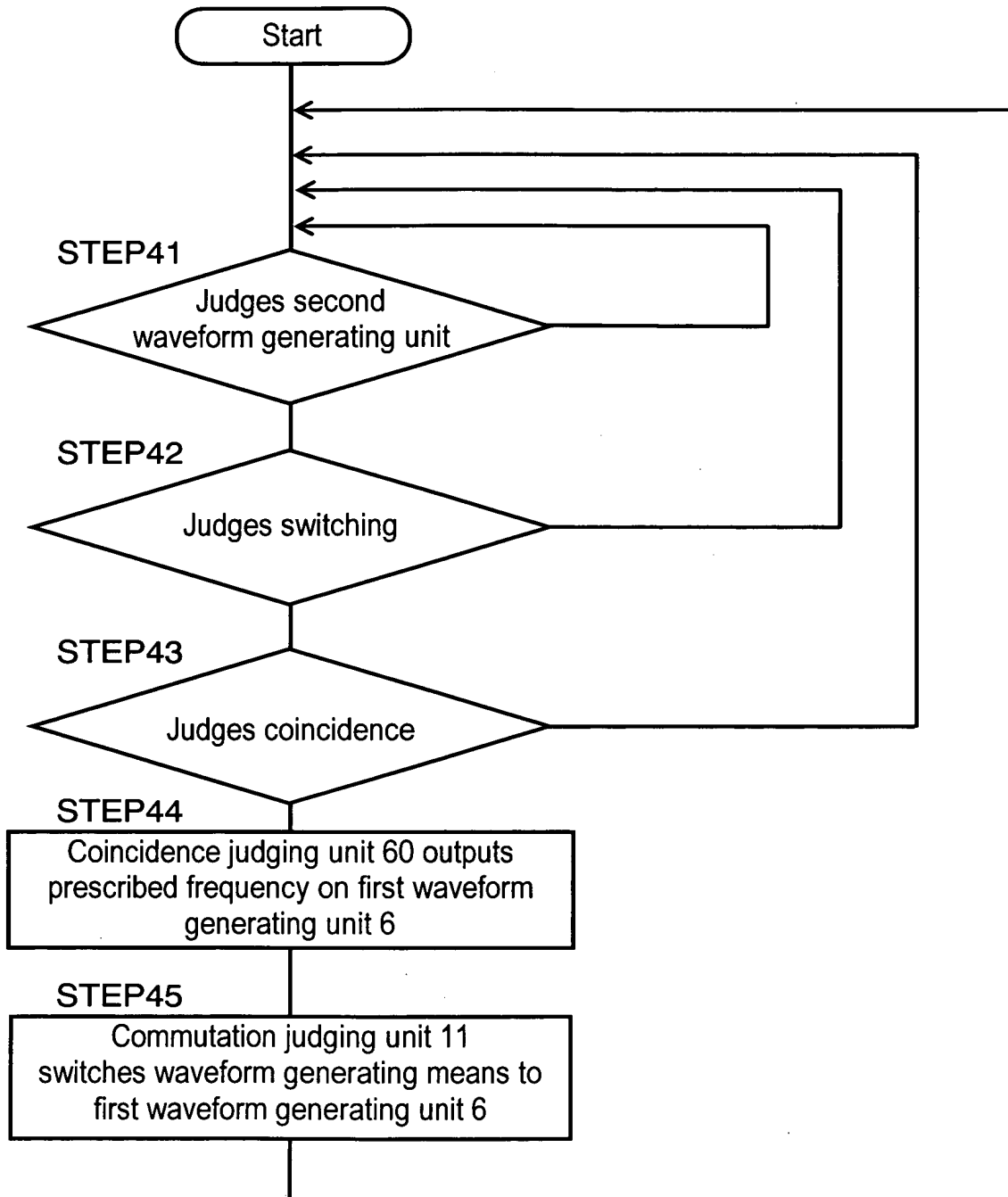
FIG. 11





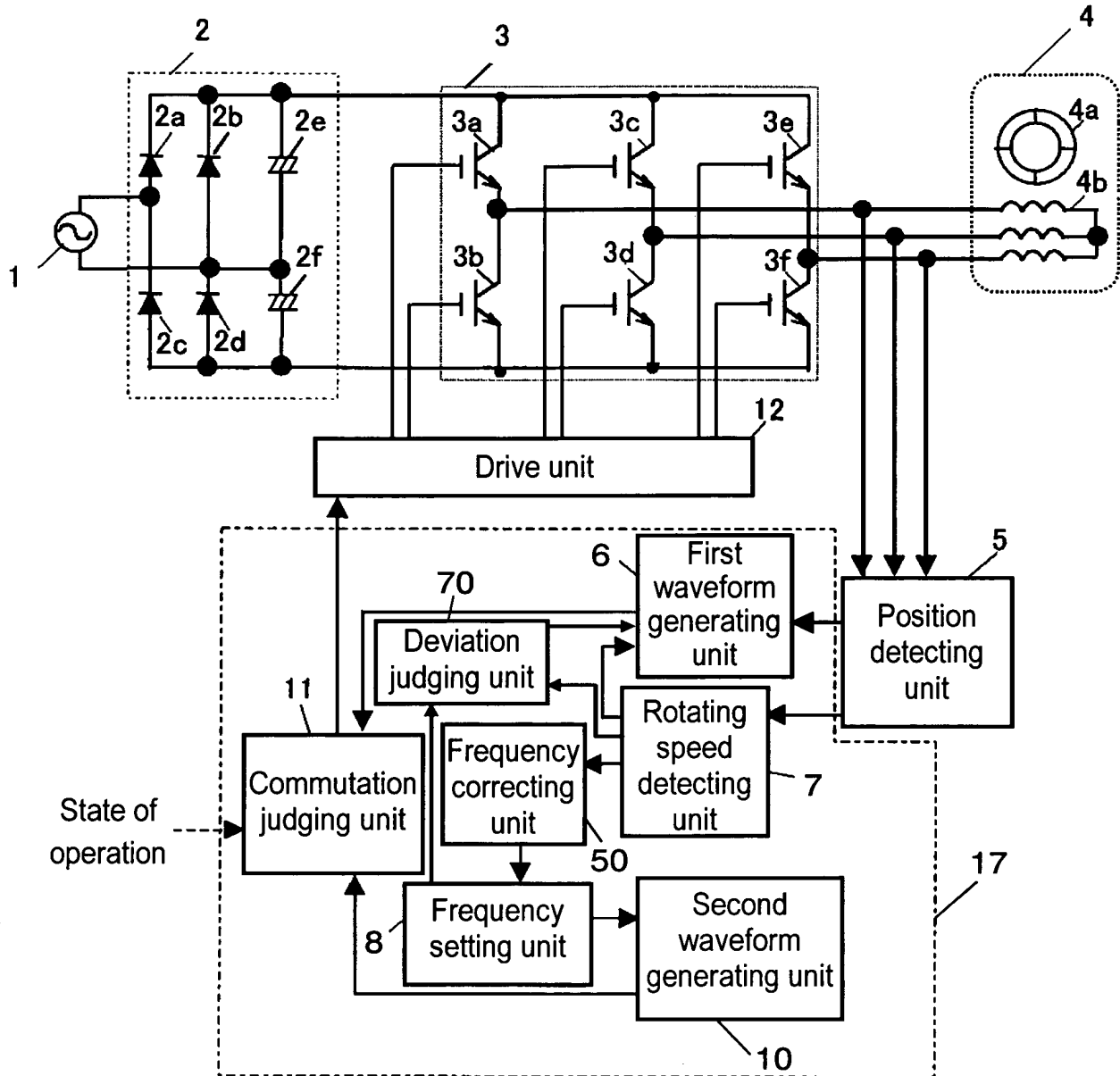
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FIG. 12



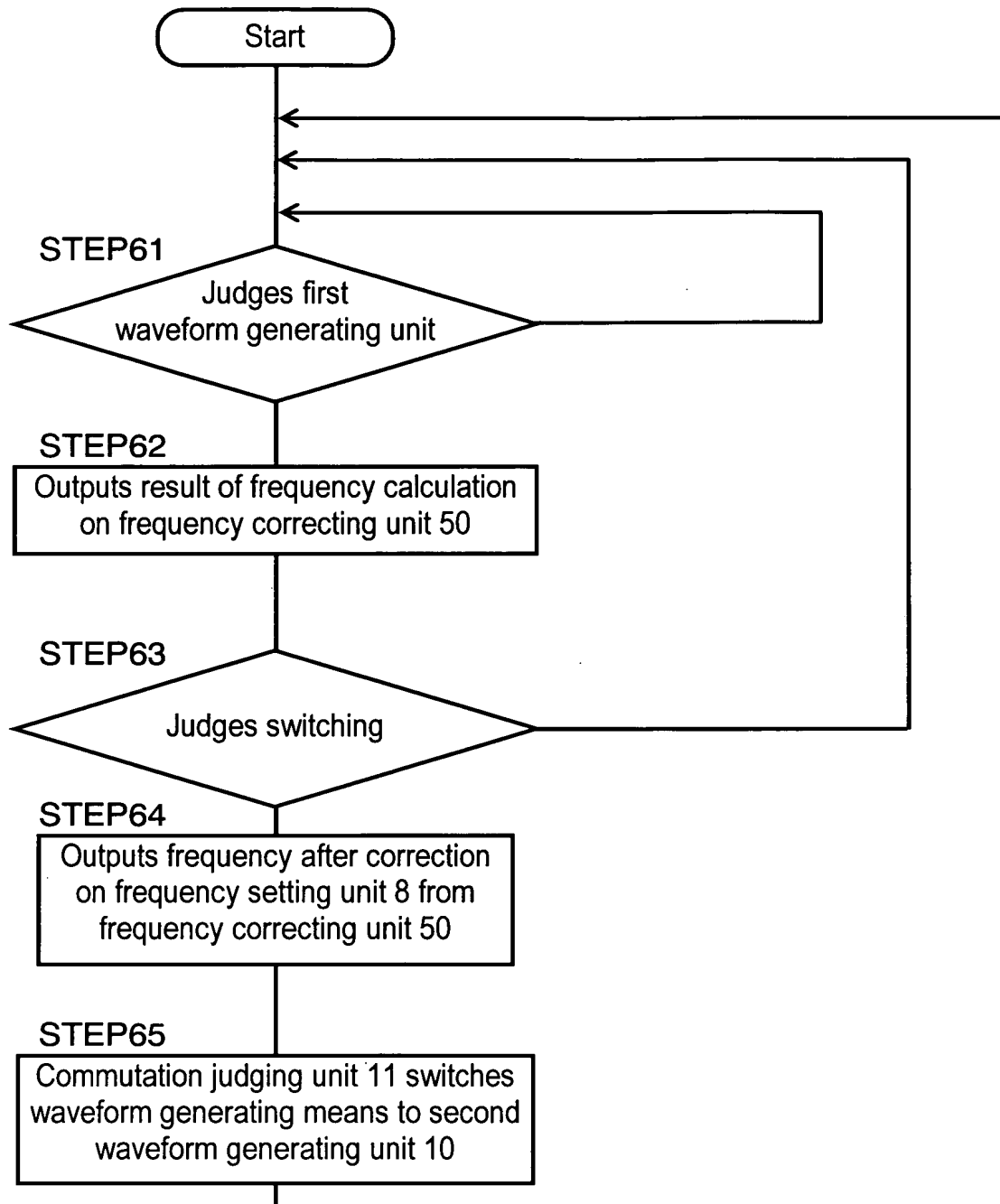
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FIG. 13



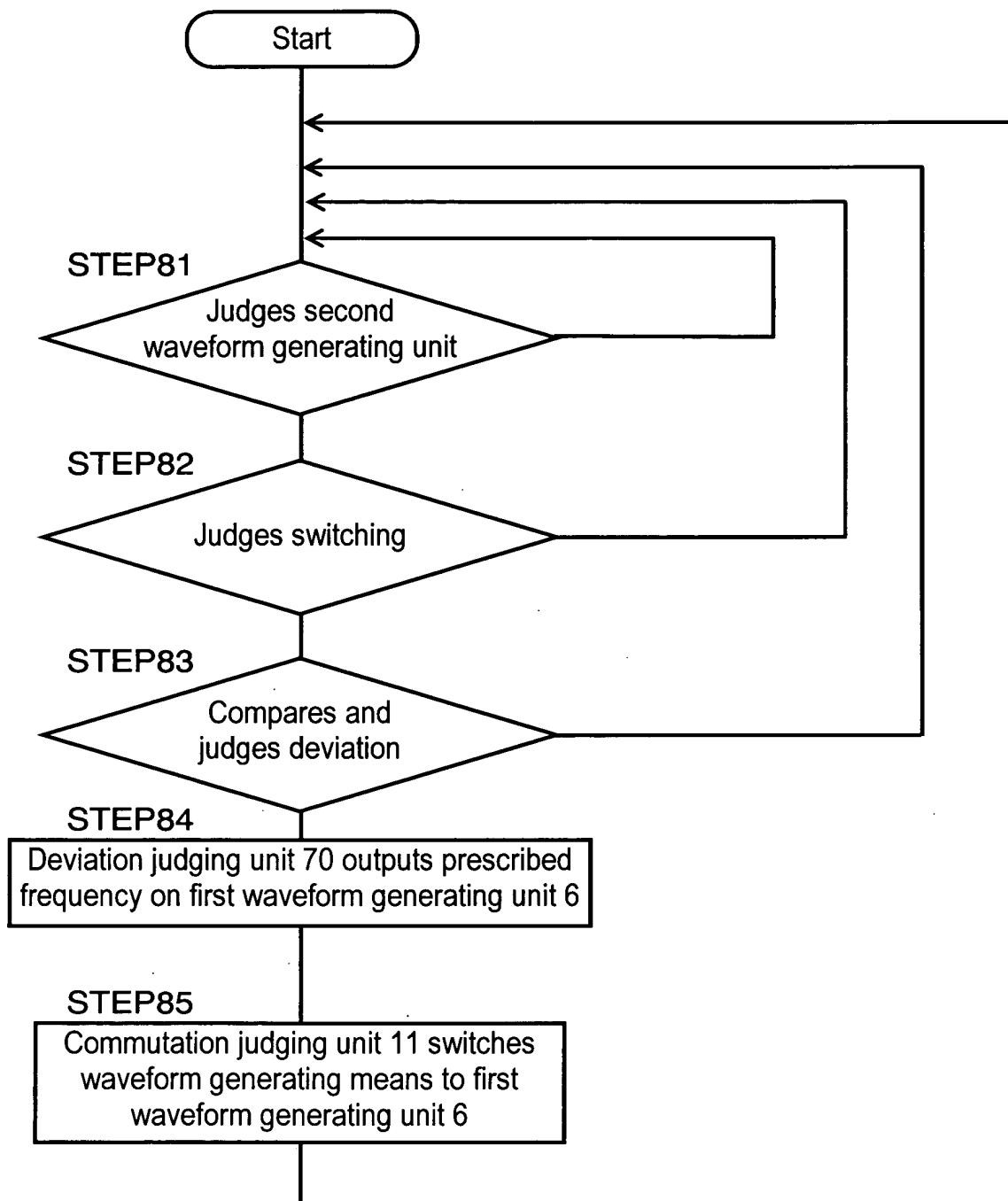
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FIG. 14



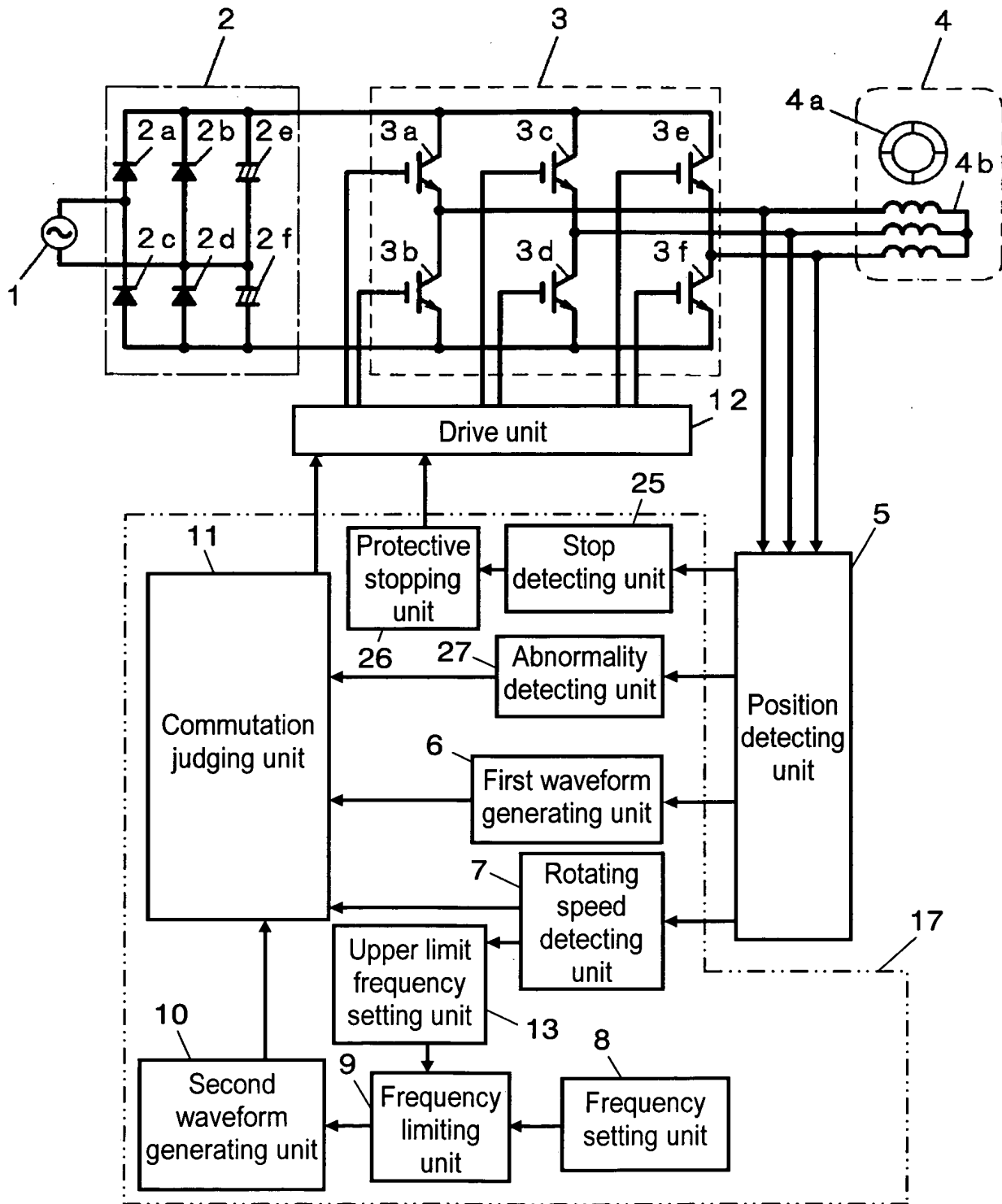
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FIG. 15



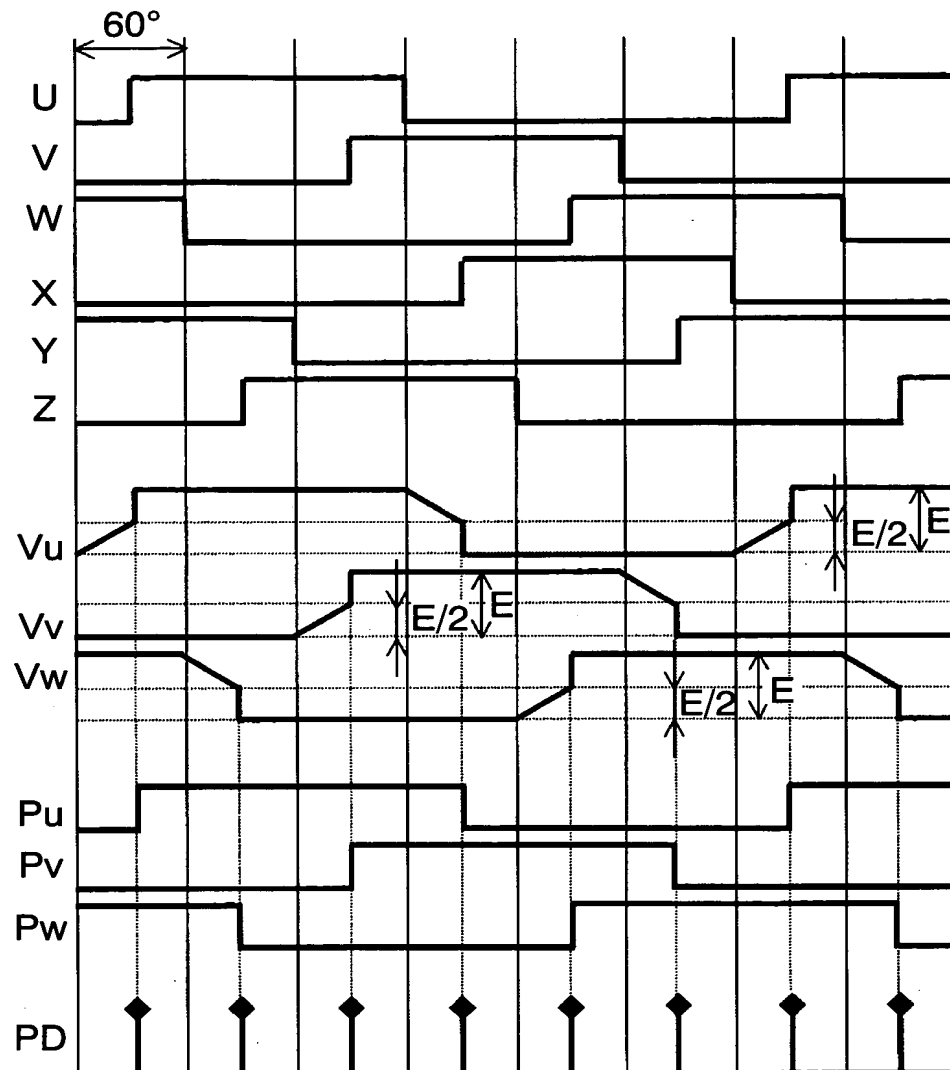
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FIG. 16



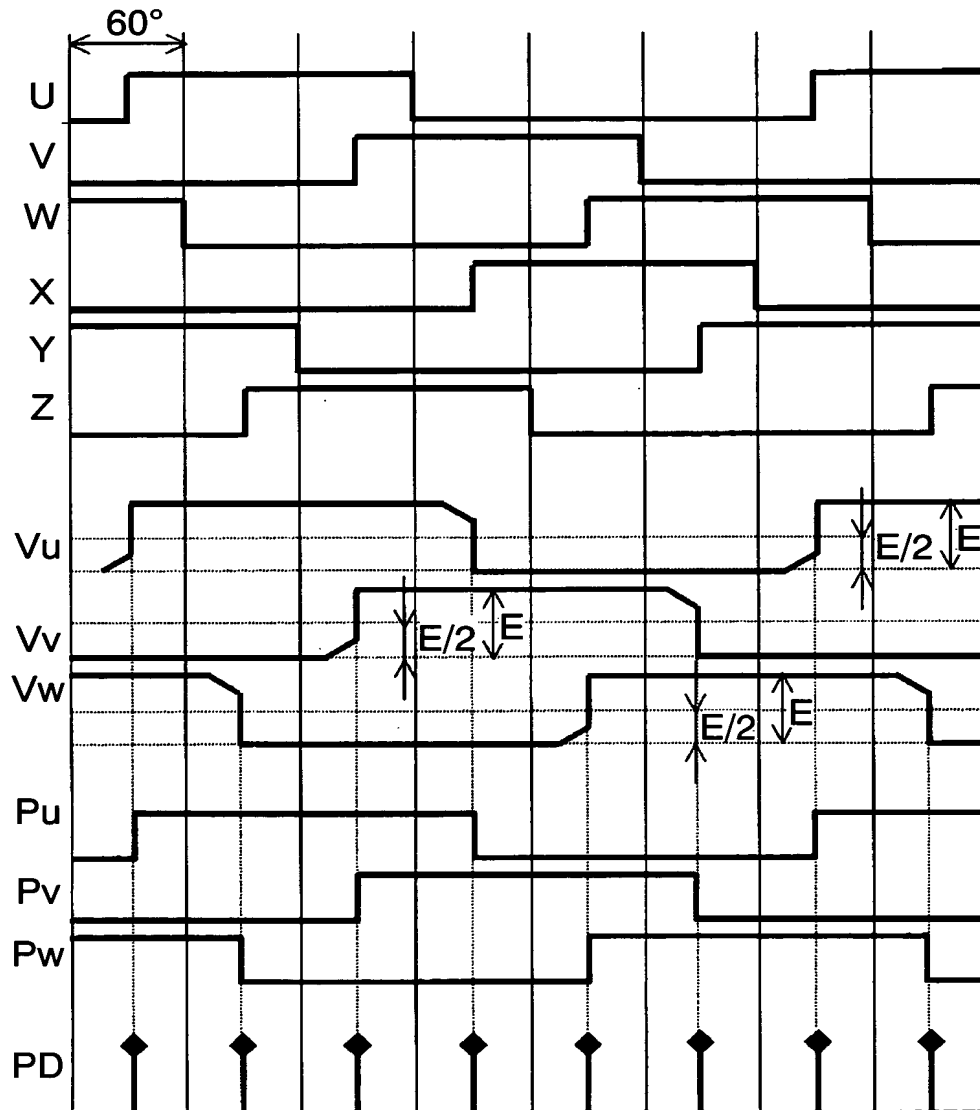
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FIG. 17



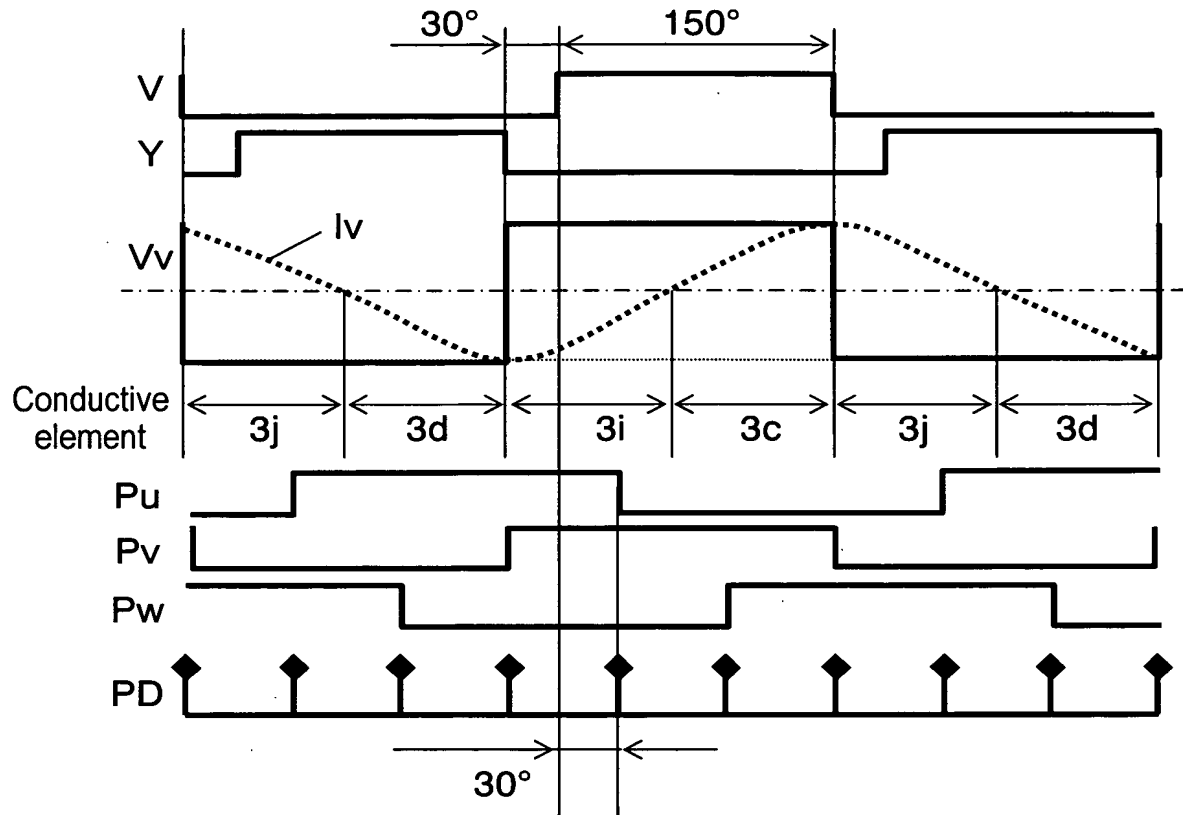
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FIG. 18



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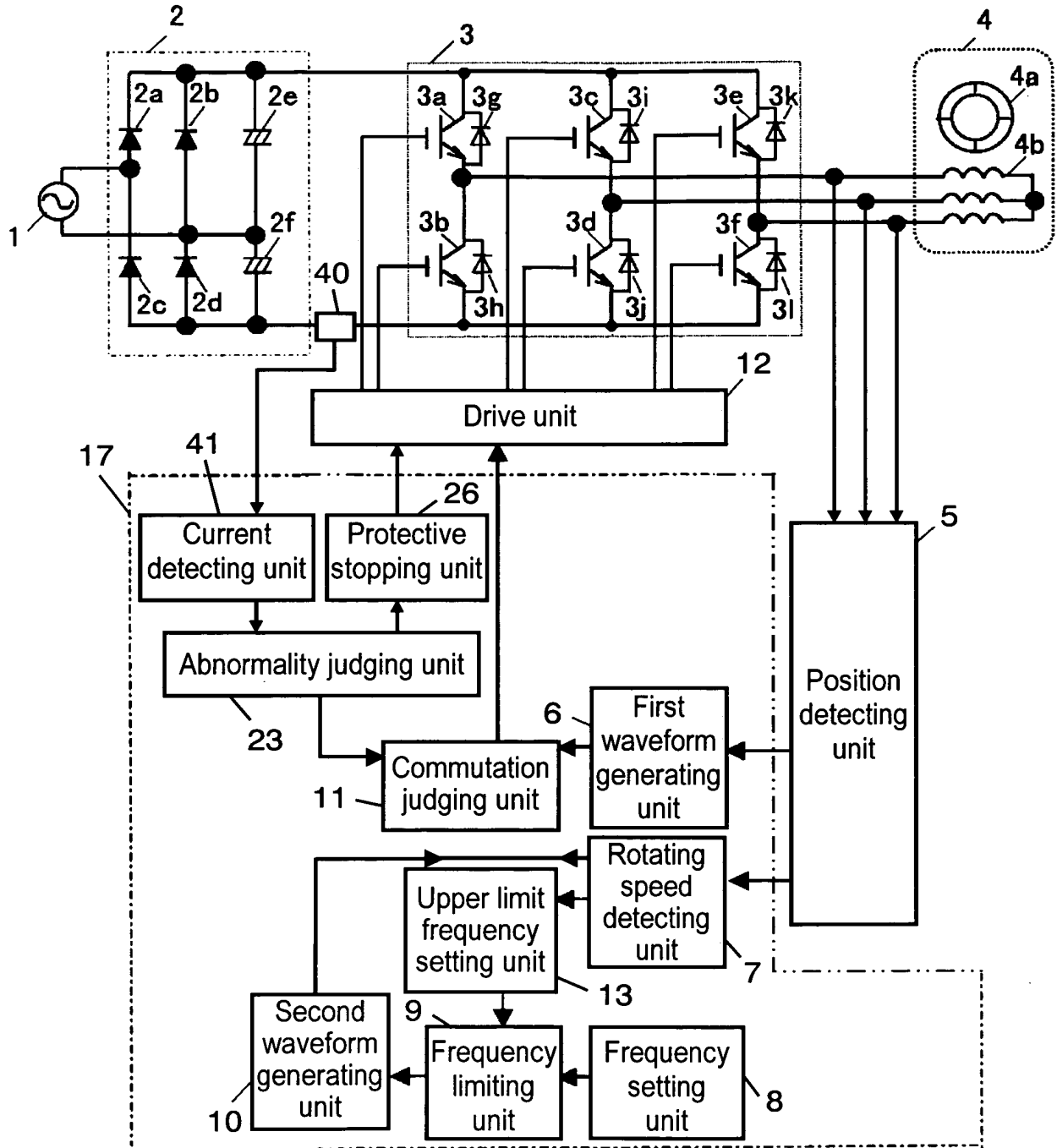
FIG. 19





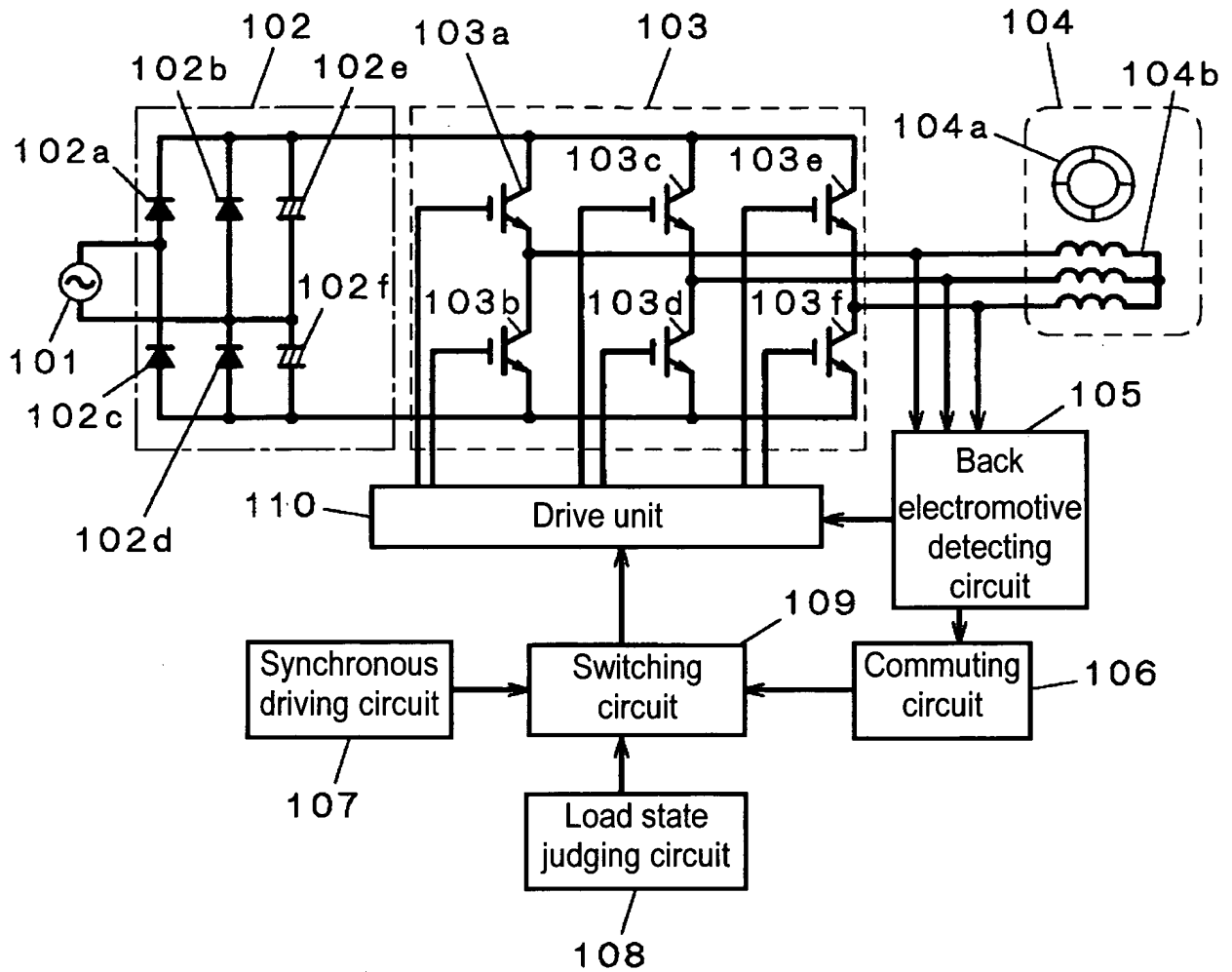
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FIG. 20



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FIG. 21



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Reference numerals in the drawings

- 3 Inverter
- 4 Brushless DC motor
- 5 Position detecting unit
- 6 First waveform generating unit
- 7 Rotating speed detecting unit
- 8 Frequency setting unit
- 9 Frequency limiting unit
- 10 Second waveform generating unit
- 11 Commutation judging unit
- 12 Drive unit
- 13 Upper limit frequency setting unit
- 14 Upper limit frequency changing unit
- 16 Upper limit frequency correcting unit
- 22 Frequency commanding unit
- 23 Abnormality judging unit
- 25 Stop detecting unit
- 26 Protective stopping unit
- 27 Abnormality detecting unit
- 30 Output voltage detecting unit
- 40 Shunt resistor
- 41 Current detecting unit
- 42 Phase difference detecting unit
- 43 Amplitude detecting unit
- 50 Frequency correcting unit
- 60 Coincidence judging unit
- 70 Deviation judging unit